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IN THE CLAIMS

1. (Currently Amended) A control for an HVAC system comprising:  
a central control for receiving information from each of a plurality of HVAC units, said central control being operable to receive information about characteristics of the plurality of HVAC units, and to access a memory of control algorithms, said memory including a plurality of control algorithms, with each of said control algorithms being associated with a particular set of combination of characteristics of the plurality of HVAC units that may report to the control, said control selecting one of said plurality of control algorithms associated with the particular combination of characteristics of the plurality of HVAC units that report to the control, and said central control being operable to control the plurality of HVAC units using said selected one of said plurality of control algorithms.
2. (Original) The control as set forth in claim 1, wherein said central control includes a microprocessor control.
3. (Original) The control as set forth in claim 1, wherein said central control is in a thermostat.
4. (Cancelled)
5. (Original) The control as set forth in claim 1, wherein said information about characteristics of said plurality of reporting HVAC units comes to said central control over a single data bus.
6. (Original) The control as set forth in claim 1, wherein said characteristic information includes information on the size of said plurality of HVAC units.
7. (Currently Amended) An HVAC system comprising:

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an indoor unit having a control operable to communicate characteristic information of said indoor unit to a central control; and

said central control communicating with said indoor unit, and said central control receiving said characteristic information from said indoor unit, and determining an optimal control strategy for said indoor unit based upon said reported characteristic information, said central control storing a plurality of optimal control strategies, and selecting a particular one of said optimal control strategies to utilize based upon the particular characteristic information reported from said indoor unit.

8. (Original) The system as set forth in claim 7, further including an outdoor unit having a control operable to communicate characteristic information of said outdoor unit to said central control.

9. (Original) The system as set forth in claim 8, wherein said central control is mounted on a unit other than said indoor and outdoor units.

10. (Original) The system as set forth in claim 9, wherein said central control is mounted in a thermostat.

11. (Original) The system as set forth in claim 8, wherein said central control also receives characteristic information from auxiliary equipment.

12. (Original) The system as set forth in claim 11, wherein said central control receives characteristic information from a ventilation device.

13. (Original) The system as set forth in claim 11, wherein zoning controls provide characteristic information to said central control.

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14. (Original) The system as set forth in claim 11, wherein said control receives characteristic information from a connectivity kit.

15. (Original) The system as set forth in claim 8, wherein said central control receiving said characteristic information, and accessing a stored memory wherein various control algorithms are stored based upon particular combinations of indoor and outdoor units, and said central control utilizing said associated optimum control algorithms based upon the communicated characteristic information of said indoor and outdoor units.

16. (Original) The system as set forth in claim 8, wherein said characteristic information from said indoor and said outdoor units comes to said central control over a single data bus.

17. (Original) The system as set forth in claim 8, wherein said characteristic information includes information on the size of said plurality of HVAC units.

18. (Original) The system as set forth in claim 8, wherein at least one auxiliary component is mounted to at least one of said indoor and outdoor units, with said control for one of said indoor and outdoor units identifying characteristics of said auxiliary component, and reports said identified characteristic of said auxiliary component to said central control.

19. (Currently Amended) A method of operating an HVAC system comprising the steps of:

(1) providing a plurality of units in an HVAC system including at least an indoor unit and an outdoor unit and a central control, said indoor and outdoor units having a particular set of characteristics from a plurality of available types of indoor and outdoor units;

(2) communicating stored characteristic information from said indoor and outdoor units to said central control; and

(3) associating said reporting characteristic information at said central control, to identify a particular combination of said reporting indoor and outdoor units, and accessing optimum control algorithms, said memory including a plurality of control algorithms, with each

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of said control algorithms being associated with a particular set of combination of characteristics of the plurality of HVAC units that may report to the control, said control selecting one of said plurality of control algorithms based upon said particular combination of said indoor and outdoor units, and utilizing said selected one of said plurality of control algorithms to control the plurality of units.

20. (Original) The method as set forth in claim 19, wherein auxiliary units further provide characteristic information to said central control, and are utilized to determine optimum control algorithms at said central control.

21. (New) The system as set forth in claim 8, wherein said particular one of said optimal control strategies is selected based upon the combination of received characteristic information from both said indoor unit and said outdoor unit.